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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/680,291	10/06/2000	Alexander P. Moravsky	7000R	9193

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EXAMINER
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HENDRICKSON, STUART L

ART UNIT	PAPER NUMBER
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1793

MAIL DATE	DELIVERY MODE
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04/05/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/680,291	<b>Applicant(s)</b> MORAVSKY ET AL.	
	<b>Examiner</b> Stuart Hendrickson	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 67, 70, 73-84 and 97-114 is/are pending in the application.
- 4a) Of the above claim(s) 70, 73, 74 and 103-107 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 67, 75-84, 97-102, 108-114 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 67, 75-84, drawn to DWNTs, classified in class 423, subclass 447.2.
- II. Claims 70, 73, 74, drawn to mixtures, classified in class 252, subclass 500.
- III. Claims 103-107, drawn to a device, classified in class 313, subclass 1+.

The inventions are independent or distinct, each from the other because:

Inventions I and II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination I has separate utility such as an electron emitter. See MPEP § 806.05(d). The DWNTs can be mixed with other material other than those of claim 70, and need not be used with an anode. Thus, the groups are distinct. The search burden is considerable. The previous restrictions are incorporated by reference.

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

During a telephone conversation with Mr. Cohen on 3/23/10 a provisional election was made with traverse to prosecute the invention of Group I, claims 67, 75-84, 97-102, 108-114. Affirmation of this election must be made by applicant in replying to this Office action. Claims 70, 73, 74, 103-107 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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Claims 67, 75-84, 97-102, 108-114 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flahaut article.

Flahaut teaches on pg. 251 a composition of roughly 40% SWNT, 40% DWNTs. Also taught is optimization of the kind of tube desired, and allusion to Hafner who makes more DWNTs. Thus, it would have been obvious to one of ordinary skill to arrive at the claimed amount of DWNTs since doing so optimizes the teachings of the reference; In re Boesch 205 USPQ 215. Claims 67 and 76-78 etc. require nothing more than the nanotubes, and purifying them is an obvious expedient to exploit their properties. The spacing and other properties are deemed possessed since they are the same material. As to claim 81, this is subjective; as compared to what? Orienting the nanotubes, such as by drawing when processing, is an obvious expedient to create an emitter material.

Claims 67, 75-84, 97-102, 108, 110, 111, 114 are rejected under 35 U.S.C. 102(e) as being anticipated by WO00/17102 with 6692717 taken as a translation thereof.

Col. 12 lines 20-25 teach a composition of 70% DWNTs. No differences are seen in the properties.

Claims 67, 75-84, 97-102, 108-114 are rejected under 35 U.S.C. 103(a) as being unpatentable over '102.

The relative purity is not taught, however purification is taught by the reference. Separating all the DWNTs from the SWNTs is an obvious expedient to exploit the properties of each separately (even if the SWNTs are the focus of the reference).

Applicant's arguments with respect to claims above have been considered but are moot in view of the new ground(s) of rejection.

/Stuart Hendrickson/

Primary Examiner, Art Unit 1793